U.S. DEPARTMENT OF ENERGY | OFFICE OF ENVIRONMENTAL MANAGEMENT

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EM's New Assistant Secretary Welcomes Cleanup Challenge

Reducing the worldwide threat of nuclear terrorism. Combating illicit nuclear weapons trafficking. Trekking to the top of Mount Kilimanjaro. David Huizenga doesn't back away from a challenge. And so, when U.S. Department of Energy Secretary Steven Chu asked him to take the helm of the world's largest nuclear cleanup program, Huizenga accepted.

The new Acting Assistant Secretary for the Office of Environmental Management (EM) is familiar with many of the unique challenges facing the EM program. In fact, he began his career with the Department in 1985, working for the Pacific Northwest Laboratory on issues related to Hanford's tank waste.

As a chemical engineer who loves the outdoors, the Tri-Cities area in eastern Washington was a perfect fit for Huizenga. He tackled important and challenging issues at work. In his free time, he hiked Badger Mountain, walked along the spectacular Columbia River, and explored the Cascade Range with some of his Hanford friends. However, in May 1987, Huizenga took a three-month detail to Washington, D.C., met the woman who became his wife and never moved back.

While at DOE headquarters, Huizenga served in a number of roles, gaining expert knowledge of federal and state environmental regulations and valuable experience interacting with states, tribes, local governments, the Defense Nuclear Facilities Safety Board, and regulators.

Beginning in 1992, Huizenga spent ten years in the Office of Environmental Management, ultimately serving as a Deputy Assistant Secretary. While this experience provided him with a strong foundation in the issues facing the EM program, Huizenga noted EM has made tremendous progress since

David Huizenga

Mustin Assumes EM Leadership Role, Chung Takes New HSS Job

U.S. Department of Energy veteran Tracy Mustin, who has held a variety of leadership and technical roles at DOE for almost two decades, has been named Principal Deputy Assistant Secretary for Environmental Management.

The Office of Environmental Management's new Acting Assistant Secretary, David Huizenga, announced the

2002 when he transferred to the National Nuclear Security Administration.

“I am impressed by the accomplishments the EM workforce has made in the past several years,” said Huizenga. “A program that began with 110 cleanup sites in 35 states is now down to 17 sites in 10 states. That is meaningful progress for our environment and our communities.”

With the current tight budget climate in the United States and some of the most difficult cleanup tasks yet to come, Huizenga has a big job ahead of him. Over the next couple months, he will visit EM’s major sites; talk to employees at headquarters and in the field; meet with stakeholders and work with Congress and regulators to chart a path for the continued safe cleanup of the remaining 17 sites.

“The men and women working for the Environmental Management program are cleaning up nuclear contamination in communities across the United States,” said Huizenga. “All Americans are looking for ways to do more with less during these tough times. My job is to work with our employees, stakeholders, and Congress to find innovative solutions and provide the resources needed to protect our workers, the public, and the environment.”

Ancient Glass Analogues Play Pivotal Role in Joint EM Research Program

Researchers at the Pacific Northwest National Laboratory (PNNL) in Richland, Wash., are using ancient Roman glasses as analogue systems for nuclear waste glass performance.

A joint effort by the Department of Energy’s Office of Environmental Management and Office of Nuclear Energy is funding the research effort at PNNL to study ancient glasses in hopes of finding ways to safely store nuclear waste.

Glasses used to immobilize nuclear waste are highly durable in wet environments. This makes it difficult to analyze the impacts of corrosion that will occur thousands of years in the future. The corrosion of ancient glasses in the environment can provide important insight after hundreds to thousands of years of alteration, researchers say.

In June, PNNL researchers took delivery of ancient glasses from two Roman shipwrecks (the Iulia Felix in the Adriatic Sea and another from off the French Mediterranean island of Embiez) as well as soil-encapsulated glasses from Aquileia, an archeological site in northeastern Italy. The various glasses have been found to be roughly contemporary, each having

change in a recent message to colleagues. The move reflects the transition at the two top positions that manage the EM program’s massive nuclear cleanup effort.

Mustin, the former Chief of Staff to the Under Secretary for Nuclear Security, replaces Dae Chung, who joined the EM organization in 2002. He has assumed a new senior management job in the Office of Health, Safety and Security (HSS), where he will guide nuclear safety and technical matters. Chung will also have a dotted-line relationship to the Deputy Secretary to serve in a broader technical and leadership role in the Department on nuclear safety and nuclear operations matters.

Huizenga said that the many talents Mustin brings to her new role would enable the cleanup organization to maintain progress in its multi-decade mission to safely cleanup the nation’s nuclear legacy. Said Huizenga: “Tracy possesses the skills, knowledge, experience, and leadership needed to successfully carry out the responsibilities of the Principal Deputy for Environmental Management and to build on the excellent work EM has done in recent years.”

Mustin joined DOE in 1991 as part of the New Production Reactors Program and then spent 10 years with the EM organization. During this period, she managed programs to stabilize buildings at the Rocky Flats plant in Colorado; shipped foreign

been interred about 1,800 years ago.

These glasses are being analyzed using state-of-the-art advanced characterization techniques to establish the structures that have formed during their corrosion. The joint International Long-Term Glass Corrosion Program has been established to delineate the need for an improved mechanistic understanding of nuclear waste glass corrosion processes.

The project will identify key information gaps or uncertainties that limit modeling the long-term behavior of glass waste forms and then jointly define and carry out testing to fill those gaps.

Speaker Casts Magic Spell with Safety Lesson at Savannah River Site

A nationally recognized speaker used magic and creativity to reinforce the value of safety in the workplace during a presentation this month before 300 workers at the Department of Energy's Savannah River Site (SRS).

The visit by John Drebinger, who speaks to organizations about workplace safety, was sponsored by the Safety and Health organization of Savannah River Remediation (SRR), the liquid waste contractor at the DOE site in Aiken, S.C.

Magician and motivational speaker, John Drebinger, speaks to Savannah River Site liquid waste contractor employees about the value of safety in the workplace.

Patricia Allen, SRR Director of Environmental, Safety, Health and Quality and Contractor Assurance, said Drebinger's use of proven fun and magic techniques helped raise the expectations and energy of the workforce to ensure a safe and productive workplace.

research reactor spent nuclear fuel to the United States; and transported nuclear and other radioactive materials from DOE sites to storage and disposal facilities. She played a key role in the first shipment of Training, Research, Isotopes, General Atomics (TRIGA) research reactor spent fuel from the West Coast to Idaho, and in planning shipments of spent fuel from West Valley in New York.

Earlier in her career, Mustin served in the U.S. Navy on active duty from 1984-1991, and then as a reserve officer. She retired as a captain in the Civil Engineer Corps in 2009. Mustin received a B.S. in chemical engineering from North Carolina State University.

In comments about Chung's contributions to the EM organization, Huizenga noted that he championed efforts to improve contract management and project performance and established a robust peer review process for EM's nuclear construction projects. Said Huizenga: "During his tenure, EM contractor safety performance, technical integrity, and quality assurance improved significantly."

"Tracy possesses the skills, knowledge, experience, and leadership needed to successfully carry out the responsibilities of the Principal Deputy for Environmental Management and to build on the excellent work EM has done in recent

A key to his insightful approach to safety, she said, is the premise that "it must be a personal value and that values don't change when conditions change, even in tough times."

SRR President and Project Manager Dave Olson noted that his company recognizes that safety comes first. "SRR's goal in safety is zero injuries, zero events, one day at a time. We require an environment that creates safe job performance and this presentation brought our goal to life."

For more than 20 years, Drebinger has earned a reputation as an authority on motivating employees to take personal responsibility for their own safety on and off the job site. He stressed that injuries not only affect the person who is injured, but also family and others.

years."
-EM Acting Assistant Secretary David Huizenga

Chung, who joined DOE in 1989, was recruited for the newly created post in nuclear safety and technical matters by HSS leadership. In his new role, he will help HSS expand its technical capabilities and provide enhanced support in certain disciplines.

Chung will provide advice on nuclear safety and nuclear operations matters and serve as a broader resource to the Department in addressing the many challenging issues that lie ahead, DOE officials said. Ensuring the safety of DOE's nuclear facilities and operations is of vital importance to Energy Secretary Steven Chu, HSS leaders and other program offices that represent all workers, key stakeholders, and the public.

UCOR Assumes Lead Cleanup Duties at Oak Ridge

URS CH2M Oak Ridge, LLC (UCOR) assumed the lead environmental cleanup contractor role at the Department of Energy's Oak Ridge facility in Tennessee on Aug. 1.

Most of the firm's contract involves environmental cleanup and remediation of the DOE's East Tennessee Technology Park (ETTP). It also covers tasks at the Oak Ridge National Laboratory (ORNL) and Y-12 National Security Complex (Y-12).

In April, UCOR was awarded the $2.2 billion contract that covers five years and contains an option for another four years. Since then, UCOR has been heavily involved in transition activities with the former contract holder, Bechtel Jacobs Company, to facilitate the change.

"We are very pleased with our new partnership with UCOR," said John Eschenberg, the Oak Ridge Office's Acting Deputy Manager and Assistant Manager for EM. "Since day one, their team has hit the ground running - continuing our essential cleanup with zero drop-off, while identifying measures that will save time and money."

The Department of Energy's EM program and UCOR have established an open, collaborative working relationship through a recent partnering agreement. The pact emphasizes a

collaborative approach for early detection of problems and a proactive resolution process.

Under the new environmental cleanup contract, UCOR will complete the cleanup of ETTP and conduct EM missions such as facility surveillance and maintenance and waste management operations at ORNL and Y-12. ETTP, the largest portion of UCOR's cleanup contract, is a former uranium enrichment complex that operated from 1945 to 1985, supplying uranium for the defense and commercial nuclear power industries. The site was permanently shut down in 1987.

Idaho Site Snags Savings with New Technology

A new technology for treating and disposing Mixed Low Level Waste (MLLW) that recently rolled out the gate at the Department of Energy's Idaho site will yield significant cost savings, DOE officials say.

Called MLLW macroencapsulation, the process was developed at the Idaho site's Advanced Mixed Waste Treatment Project (AMWTP) in conjunction with Associated Containers, located in Oak Ridge, Tenn. The process, which has received all regulatory approvals, features a specially designed cargo container lined with stainless steel. The container is loaded with MLLW, welded shut, and can then be shipped directly to a permanent disposal site. This method eliminates the cost of treating MLLW at commercial facilities and reduces the life cycle disposition costs of MLLW by as much as 60 percent, officials say.

"Macroencapsulation is an innovative treatment method that will reduce the costs and hazards involved with treating mixed low level waste," said Jim Cooper, DOE Deputy Manager of the Idaho Cleanup Project.

It costs roughly $15,000 to treat one Fiberglass Reinforced Box (FRB) of MLLW. By comparison, a 20-foot long macroencapsulation cargo container can hold the equivalent of ten FRBs; it costs about $25,000. The resulting costs savings per shipped cargo container are approximately $125,000.

Over the remaining four year lifecycle to complete MLLW cleanup at AMWTP, estimates are macroencapsulation will save in excess of $20 million. And, because the MLLW goes from its storage location directly to permanent disposal, there are fewer shipments on the road, reducing another potential risk factor.

"This is the innovative spirit that has contributed to the Idaho site's ongoing cleanup success," Cooper said. "With macroencapsulation we have created a better, safer, more effective way of dispositioning MLLW. That's good for Idaho's operations and for other Department sites."

Integrated Safety Management Champions Workshop Set for September

Representatives from government and industry will gather for the Department of Energy's Integrated Safety Management (ISM) Champions Workshop from Sept. 12-15 in Kennewick, Wash. The workshop will be held at the Three Rivers Convention Center, near the DOE's Hanford site in southeastern Washington.

During the workshop, attendees will learn about safety developments and environmental practices for effective implementation of the Integrated Safety Management System, which is essential for safe work operations at sites across the DOE complex.

The event will feature presentations from senior management from DOE Headquarters as well as keynote speakers from industry and academia. For more information about the workshop and to register, go to http://www.ism2011.com/.

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